

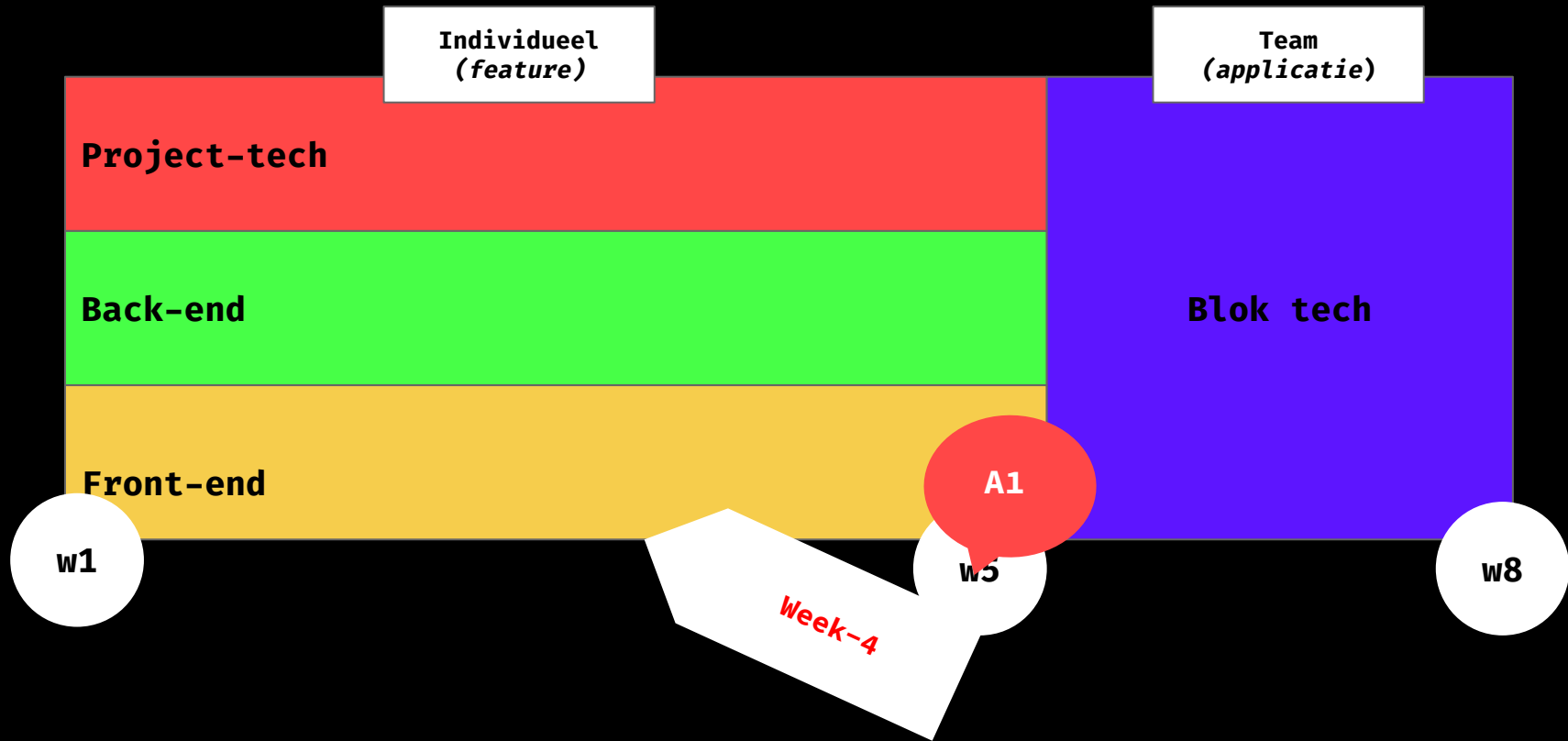
project-tech

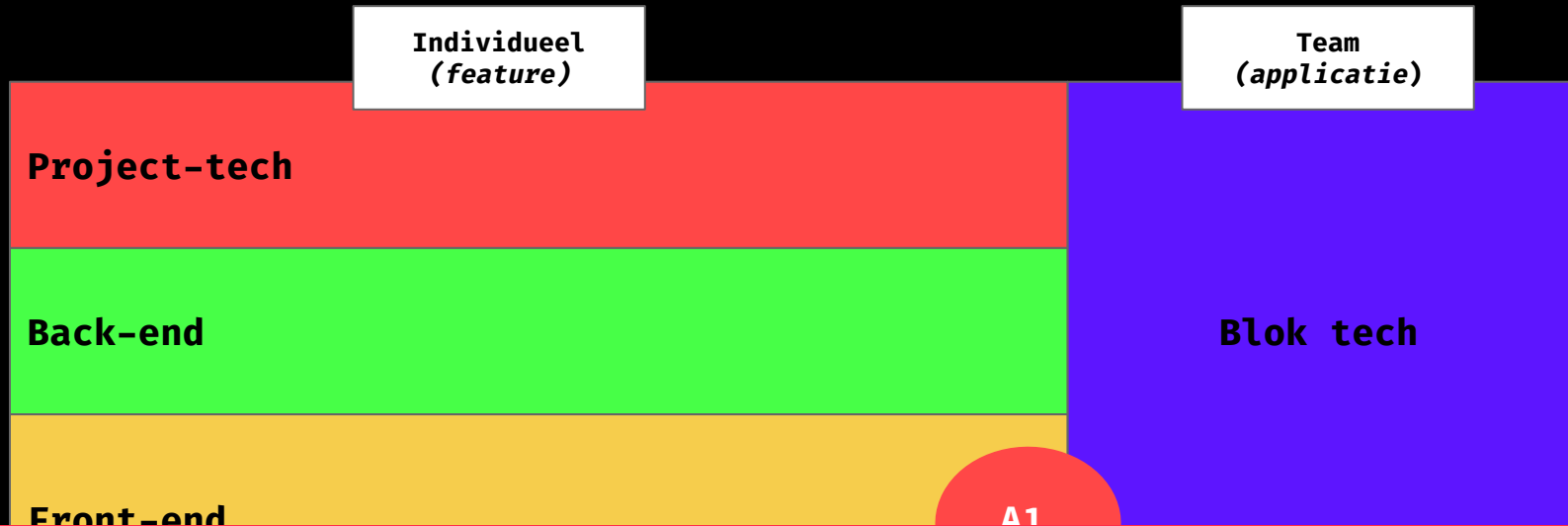
Refactor & Deployment

lab 4/8

*Show what
you did*

Stand-up!





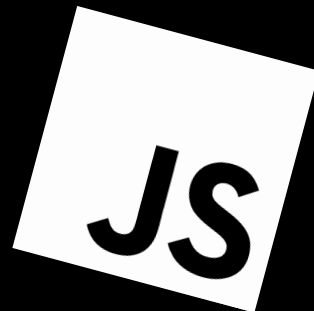
Note: Next week (5) we'll do a final peer review.
See it as a checklist.

today

~~I. Standup~~

II. Refactoring

III. Deployment



Refactoring

Refactor

?

[...] a disciplined technique for **restructuring an existing body of code**, altering its *internal structure* without changing its *external behavior*.

refactoring.com

Refactor

humans

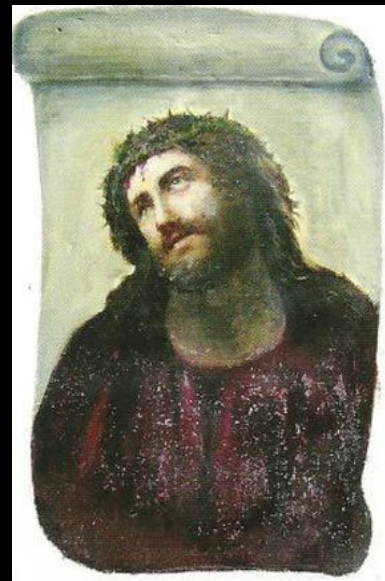
The code you write will be *executed* by computers, but it will **exclusively be *read* by humans**. Therefore, it's critical that your code is easy to read, understand, and "mentally parse".

Refactor

humans



‘It works!’



‘It’s beautiful!’

Refactor

example

Bad:

```
function addToDate(date, month) {  
  // ...  
}  
  
const date = new Date();  
  
// It's hard to tell from the function name what is added  
addToDate(date, 1);
```

Good:

```
function addMonthToDate(month, date) {  
  // ...  
}  
  
const date = new Date();  
addMonthToDate(1, date);
```

Function names should say what they do

Refactor

example

Bad:

```
const DAYS_IN_WEEK = 7;  
const daysInMonth = 30;  
  
const songs = ["Back In Black", "Stairway to Heaven", "Hey Jude"];  
const Artists = ["ACDC", "Led Zeppelin", "The Beatles"];
```

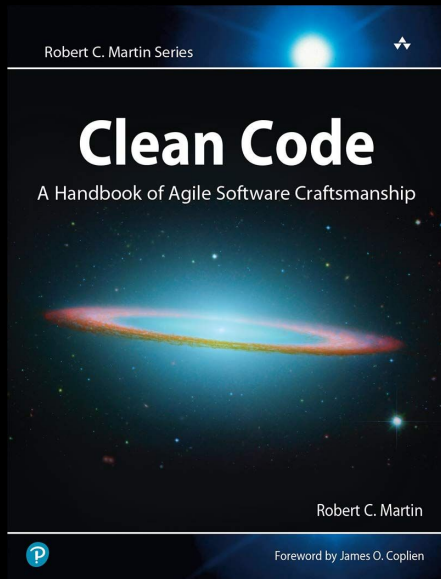
Good:

```
const DAYS_IN_WEEK = 7;  
const DAYS_IN_MONTH = 30;  
  
const SONGS = ["Back In Black", "Stairway to Heaven", "Hey Jude"];  
const ARTISTS = ["ACDC", "Led Zeppelin", "The Beatles"];
```

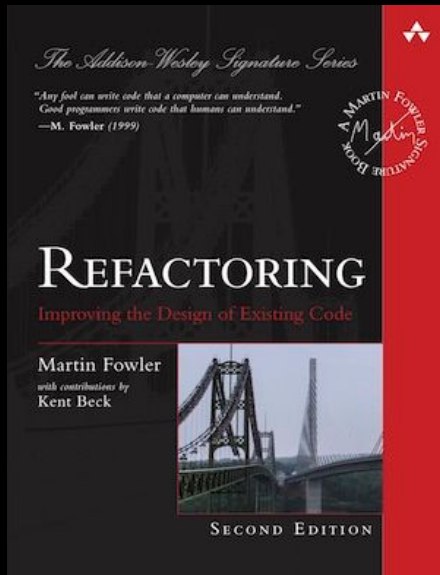
Use consistent capitalization

Refactor

books



Clean Code
Robert C. Martin



Refactoring
Martin Fowler



JS Patterns
Stoyan Stefanov

Refactor

github

The screenshot shows the GitHub repository page for 'ryanmcdermott/clean-code-javascript'. The repository has 37 issues, 11 pull requests, and 47.2k stars. The main content area displays a table of files and a table of contents. The table of contents lists: 1. Introduction, 2. Variables, 3. Functions, 4. Objects and Data Structures, and 5. Classes. The right sidebar shows the repository description, tags, and contributors.

Search or jump to... Pull requests Issues Trending Explore

ryanmcdermott / clean-code-javascript Watch Unstar 47.2k Fork

<> Code 37 Issues Pull requests 11 Actions Wiki

master 1 branch 0 tags

ryanmcdermott Merge pull request #326 from doskovimilos/patch-1 da76556 on 21 Jan 537 commits

.gitattributes	Remove README.md from linguist documentation	4 years ago
LICENSE	First commit	4 years ago
README.md	Add Serbian translation.	5 months ago

clean-code-javascript

Table of Contents

1. [Introduction](#)
2. [Variables](#)
3. [Functions](#)
4. [Objects and Data Structures](#)
5. [Classes](#)

Clean Code concepts adapted for JavaScript

javascript best-practices clean-code composition inheritance clean-architecture principles

Readme MIT License

Contributors 108

JavaScript 100.0%

github.com/clean-code-javascript

Refactor

standards

Code quality: how do we define “bad” code? If it’s overly complex? If it’s ‘messy?’

In conclusion: "bad" code can mean multiple things (simultaneously). Code can look horrible (to a developer), but still do what it is supposed to do. Is this bad code?

Refactor

standards

Why is maintaining a good coding style important?

- To avoid hard to catch errors as much as possible.
- Other developers can understand what your code does
- To save time and avoid stress
- Clean written code ***is*** your documentation!

Refactor

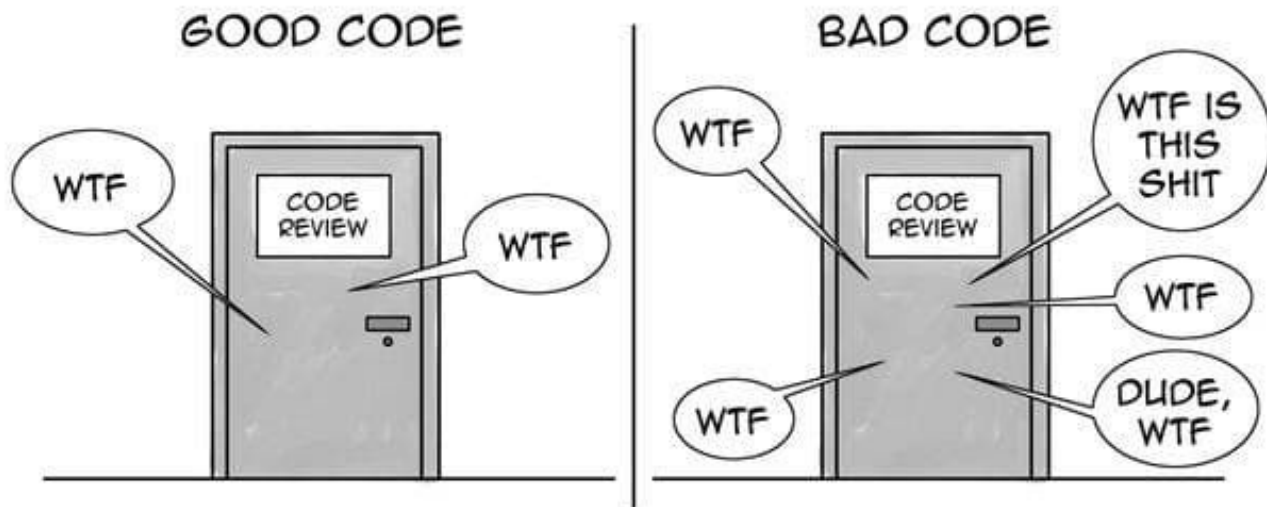
helpful tools

- ❖ Linters to enforce rules
- ❖ Formatters to format code
- ❖ A Good Night's Sleep
- ❖ Code peer reviews

Refactor

low-hanging fruit

- ❖ ES5 vs. ES6 (*variables, arrow functions*)
- ❖ Old code (*that's in comments*)
- ❖ Inconsistent Indentation



THE ONLY VALID MEASUREMENT OF CODE QUALITY: WTFs/MINUTE

ryanmcdermott / clean-code-javascript

<> Code ⓘ Issues 37 🔗 Pull requests 11 ⚙️ Actions 📖 Wiki

master 1 branch 0 tags

Q + ↓ ↓

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clean-code-javascript

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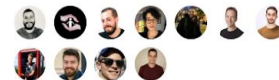
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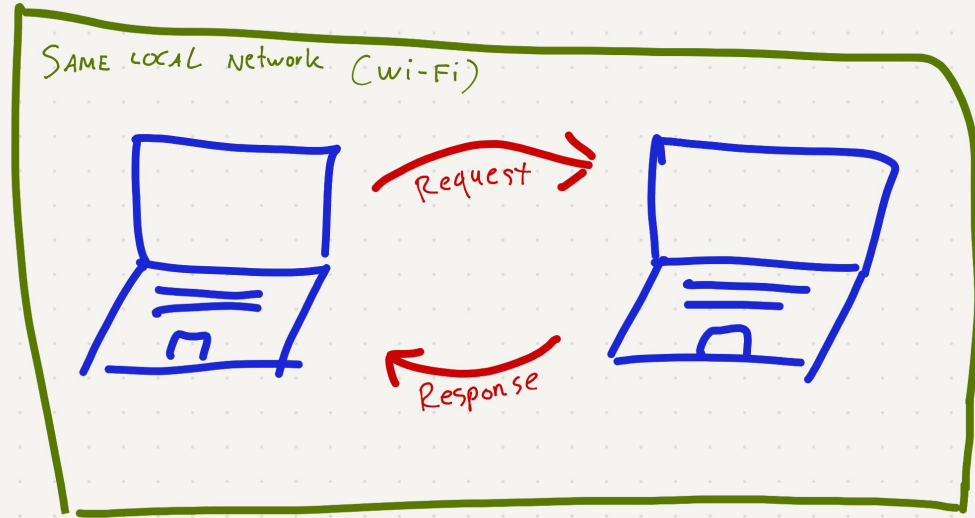
JavaScript 100.0%

assignment **search for Refactors**

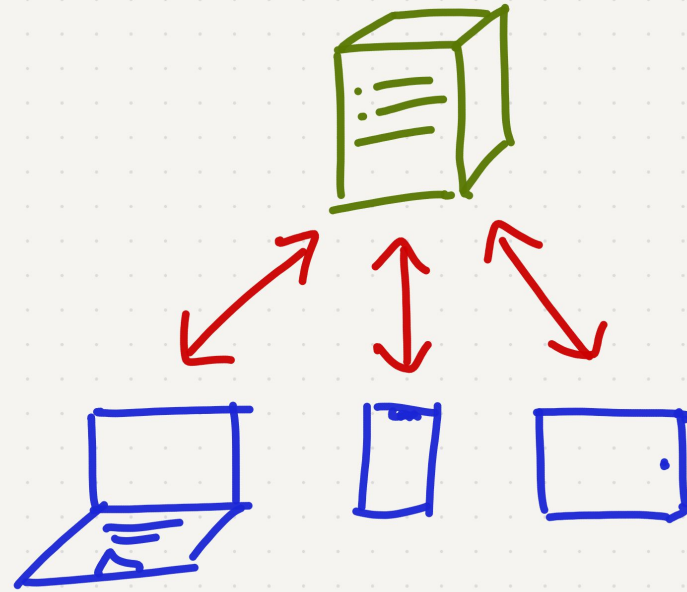
Deployment

localhost:3000



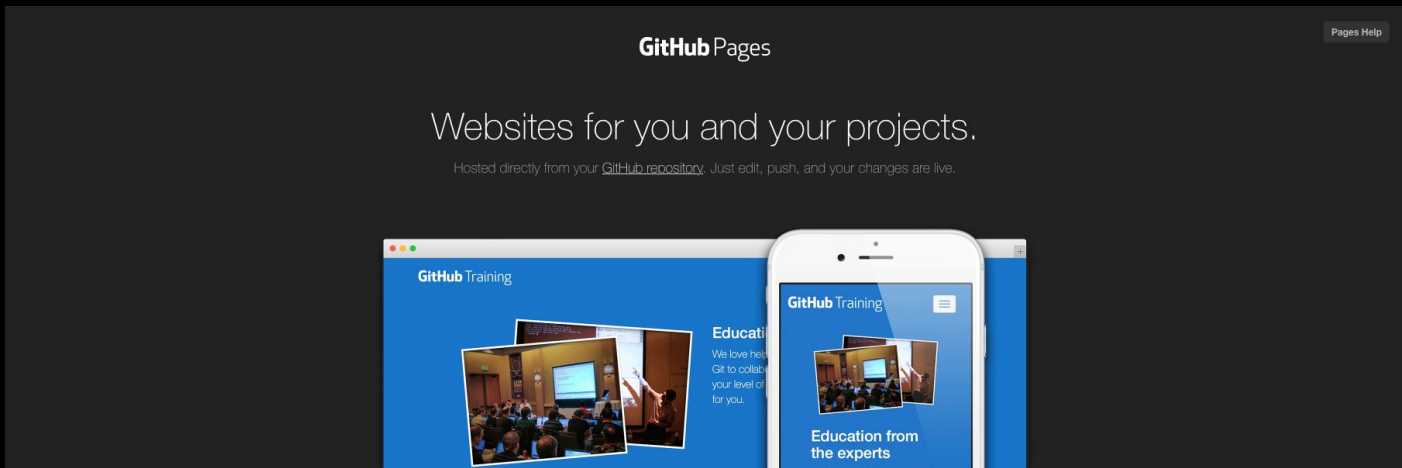


~~LOCALHOST~~ → 192.168.1.163



Deployment

static



Note: *Static hosting* like GitHub pages or Oege
won't work for dynamic Node.js applications

Providers

There's many hosting providers available, ranging from smaller (local) ones like Yourhosting to global conglomerates like Amazon Web-Services (AWS).

Choice is based on project requirements and costs.

Deployment

paas



Heroku



DigitalOcean



DigitalOcean



VPS, PaaS, wtf

VPS

Many hosting providers offer virtual private servers (VPS). These “boxes” allow you to.. whatever you want. This is great if you have some very specific requirements, but also means you have to do *everything* yourself.

Popular options are TransIP (VPS), AWS (EC2), or DigitalOcean (Droplet).

VPS, PaaS, wtf

PaaS

There's also dedicated services that do all the hard work for you. These are often a little more expensive and less-flexible.

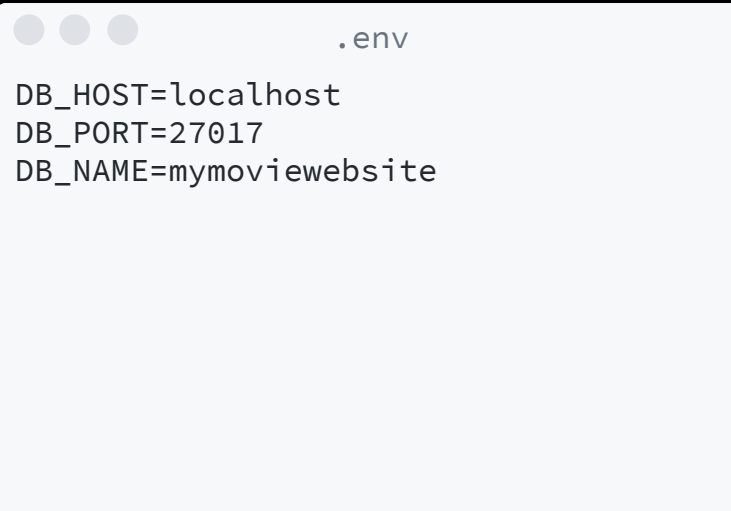
**We refer to these services as
*Platform as a Service.***

Popular options are Vercel, Platform.sh, and DigitalOcean App Platform.

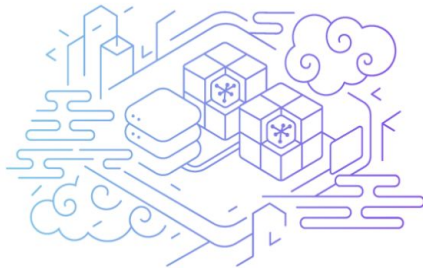
Deployment

.env

```
// Files
mongodb-server/
├── node_modules/
├── static/
│   ├── index.css
│   ├── index.js
│   └── upload/
├── view/
│   ├── add.ejs
│   ├── detail.ejs
│   ├── head.ejs
│   ├── list.ejs
│   ├── not-found.ejs
│   └── tail.ejs
└── .env
    ├── index.js
    └── package.json
```



```
.env
DB_HOST=localhost
DB_PORT=27017
DB_NAME=mymoviewebsite
```



SPOTLIGHT

Data on Heroku

Build data-driven apps with fully managed data services.

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OFFICIALLY SUPPORTED LANGUAGES



In addition to our officially supported languages, you can use any language that runs on Linux with Heroku via a third-party buildpack. [View all buildpacks](#) →



Code[ish] »

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110. Scaling a Bernie Meme

Having a goofy meme project go viral can be an exhilarating feeling. It can also cause your heart to drop, as you've suddenly been saddled with new... →

Live demo **deploy, paas, hosting**



exit;

see you in lab-5!